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ABSTRACT

Using findings from Monitoring the Future, an annual national survey of high school seniors conducted for the past 11 years, this study tested the correspondence of self-report and arrest measures of crime by examining comparable rates for specific offenses for specific age groups and years from 17 to 23, and comparing these with Federal Bureau of Investigation statistics on age-specific arrest rates over the same period covered by the study. Rates are reported both in terms of percentages of individuals who engaged in specific criminal acts and in terms of rate of offenses per individual. Results, reported through a series of tables, showed that illegal behavior in general declined with increasing age, with the important exception of rates of assault as reflected in arrest records, which did not peak until age 21. Another set of tables presents results for time trends in self-reported illegal behavior and corresponding indices of arrest. One implication of these findings is that time trends in crime rates are not at all uniform across offenses, and thus do not reflect any change in a general tendency toward deviance. Yet the results also suggest that rates of assault have increased significantly over the period covered by the survey. (Twelve tables and 8 line graphs are attached.) (TE)

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Time Trends and Age Trends in Self-Reported Illegal Behavior

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Criminologists have at their disposal three methods of measuring illegal behavior: official records, victim reports, and self reports of offending. Most researchers would now agree that each makes an important contribution to our understanding of crime, and that the three methods provide consistent findings about many of the important facts about crime (e.g., Elliott and Ageton, 1980; Empey, 1982; Hirschi, Hindelang, and Weis, 1979).

Self report measures of crime have advantages that make them particularly useful (e.g., Elliott and Ageton, 1980; Hirschi et al. 1979. This method has the potential to cover all offenses that are knowingly committed, and a broad body of research indicates that self reports are reasonably valid and reliable. Official measures are limited to crimes reported to the authorities, and they may be subject to biases in enforcement. Victim reports also cover a large pool of offenses, but they have limited value for providing information about offenders.

Self report studies have contributed a great deal to our understanding of the etiology of crime, but far less to the study of national crime trends. While there have been many self report studies, few have used representative national samples (e.g., Elliott and Ageton, 1979; Gold and Reimer, 1975), and

none of these studies were well designed for assessing changes over time in national rates of illegal behavior. The present paper is intended to fill this gap by reporting findings from the Monitoring the Future study, an annual national survey of high school seniors conducted by The University of Michigan's Institute for Social Research. Because this study includes relatively large samples each year for an eleven year period, it provides an adequate base for the study of time trends. It also allows us to analyze age trends over the span of 17 to 23 years, a period that has received relatively little attention in research on self report measures.

The present study tests the correspondence of self report and arrest measures of crime by examining comparable rates for specific offenses for specific age groups and years. Here we follow the advice of Hirschi et al (1979) that consistent results cannot be expected unless the analysis focuses on measures of the same offenses.

Our analysis is also of considerable substantive interest because available research gives us an oddly limited understanding of time trends in national crime rates. Most analyses have focused on official records in terms of crimes known to the police and on victim reports assessed through the National Crime Survey. The two methods tend to agree, indicating for example that crime declined from 1980 - 1984 (e.g., Steffensmeier and Harer, 1987). This approach is useful in that these two measures are relatively sensitive to the total volume of crime committed in the country. Thus, these measures are appropriate for assessing the average citizen's risk of being a victim of crime.

The drawback of this approach is that these measures tell us little about the characteristics of offenders. The police have no information about the perpetrators of unsolved crimes, and victims usually can't tell us much about their assailants. If there are demographic shifts in the proportion of the

population having characteristics associated with the likelihood of committing crimes, we have no idea whether changes in the crime rate reflect changes in the composition of the population or or changes in comparable individuals' propensities to commit crimes.

This is precisely the situation that arises from trends in the age composition of the United States population. It is well established that crime rates vary dramatically with age (e.g., Hirschi and Gottfredson, 1983), as is illustrated in Figure 1. Over the period 1975 - 1985 (the focus of our analysis) the percentage of the United States population at age 17 has fallen from 1.98 to 1.51. Given the concentration of the crime rate in such a brief segment of the age span, this change in age composition means that time trends in age specific crime rates may be very different from time trends in crime rates for the population as a whole.

Methods

Sample

The data we analyze were collected as part of the Monitoring the Future study. For a detailed description of the sample design and data collection, see Bachman and Johnston (1978); for a full listing of variables, see Johnston, Bachman, and O'Malley (1986); and for detailed findings on drug use and related variables, see Johnston, O'Malley, and Bachman (1986). In this ongoing study, which began in 1975, a wide range of information is gathered from a nationally representative sample of high school seniors. Each year, a three-stage national probability sample leads to questionnaire administrations in approximately 130 high schools (roughly 110 public and 20 private). This procedure yields between 15,000 and 19,000 respondents. A random one-fifth of each annual sample completes the version of the questionnaire that includes

the items used in the present analysis. The analysis of time trends is based on responses from the high school senior classes of 1976 through 1986.

The analysis of age trends takes advantage of data from the follow-up portion of the study, which includes a sub-sample of each senior class. Half of the participants in the follow-up study complete questionnaires in every odd numbered year after graduation, and the other half do so in every even numbered year. Response rates for the base year average 80%, and follow-up response rates are generally 75% or more of the original group. The follow-up study over-samples the more serious drug users in high school in order to obtain more accurate estimates for this segment of the population; the over-sampled individuals are then given smaller weights in analyses so as to produce a representative sample. The present analysis used four waves of data, covering illegal behavior at approximate ages of 17, 18, 20, and 22 or 17, 19, 21, and 23. The analysis included only those individuals who had progressed through at least three waves of interviews. This yielded weighted sample sizes of approximately 1200 for age 17, 600 for ages 18 through 21, and 300 for ages 22 and 23. These respondents had been members of the high school senior classes of 1976 through 1981.

An important limitation of the Monitoring the Future study is that it excludes people who are no longer in school by the spring of their senior year. Thus, the study under-represents a group at high risk for crime. Provided that a substantial portion of crime is committed by the sizable majority who do finish high school, and that drop out rates have not changed over the period of the study, this is not a serious threat to the validity of the study.

Self Report Measures

The fourteen-items measuring illegal behavior that are used in Monitoring the Future also were used in the Youth in Transition study (Bachman, O'Malley, and Johnston, 1978). They are adapted from Gold's (1970) well known measure. The questions ask how many times the respondents have engaged in each act during the past twelve months. Since questionnaires are administered in April, we interpret responses as most indicative of rates of illegal behavior the previous calendar year. Response choices are "not at all," "one," "two," "three or four times," and "five or more times." The items concern assaults (four items), robbery, theft (four items), joy riding, trespassing, and destruction of property (three items). For portions of the analyses, composite indices were formed by summing groups of items. The index of aggressive offenses included items concerning assault and robbery, and the index of property offenses included all of the remaining items.

We report rates both in terms of percentages of individuals who engaged in an act and in terms of rate of offenses per individual. The former concerns how many individuals are involved in the activity, regardless of how often. The latter reflects the number of individuals and the frequency with which they commit the act. Note that we provide only five categories of frequency, so we cannot distinguish respondents who engaged in an offense one hundred times from those who do so only five times. Thus, our rates are not a literal accounting of the full number of offenses committed. We consider this approach preferable to asking respondents to supply absolute frequencies. We are skeptical of respondents' abilities to accurately remember a large number of offenses. Given the positively skewed distribution of illegal behaviors, estimates of rates are greatly affected by extreme answers from very few people. Our truncated response categories provide more stable estimates.

Arrest Rates

Estimates of age specific arrest rates for the United States were calculated on the basis of age specific arrest totals from the FBI's Uniform Crime Reports and estimates for the size of the corresponding national population from the Current Population Reports prepared by the Bureau of the Census. The Uniform Crime Reports are based on reports from a subsample of law enforcement agencies, and the FBI provides an estimate of the population size covered by those agencies. In order to calculate age specific rates, we assume that the included population has the same age distribution as the rest of the country. We limit our attention to the offense categories that most closely correspond to the items in the self report measure: aggravated assault, other assaults, robbery, larceny theft, car theft, arson, and vandalism. The Uniform Crime Reports reflect arrests rather than individuals. If an individual is arrested twice, he or she is counted twice in the arrest totals. Thus, the arrest statistics are more similar to our self report estimates for the number of offenses per individual than for the percentage of individuals who engage in an offense.

Results

Age Trends

Tables 1 through 4 show age trends in self reported illegal behavior for ages 17 through 23 separately for males and females. Tables 1 and 2 reflect the number of offenses per person, while Tables 3 and 4 reflect the proportion of respondents engaging in a given offense (regardless of how many times).

The results are quite consistent in showing that illegal behavior declines with age throughout this span. This is true for both summary indices and virtually all specific offenses. Without exception, correlation coefficients between age and offense rate are negative. Cases in which the rate does not

uniformly decline with age appear attributable to chance. For example, the age trend is least consistent for infrequent behaviors, where estimates have the greatest proportion of error (e.g., hitting a supervisor and arson). Overall, roughly three times as many offenses are reported by 17 year olds as by 23 year olds. Prevalence declines dramatically as well. At least one offense is reported by 74.3% of males and 50.8% of females at age 17; at age 23 the figures are 29.7% and 24.3% respectively.

Table 5 shows age and sex specific arrest rates. The peak age of the overall arrest rate is 16 to 17, so the majority of offenses can be expected to decline from ages 17 through 23. Indeed, this is true for almost all offenses for both males and females. Most deviations from this downward trend appear to be substantively unimportant because they involve inconsistent fluctuations for relatively rare offenses (e.g. arson for both sexes, robbery for females). Thus, for most offenses self report and arrest indices yield the same results.

Nevertheless, there is one important exception: Rates of assault do not peak until age 21. This is true for both sexes for aggravated assault and for other assaults by males. (The age curve for other assaults by females is bimodal and less easily interpreted.) The disagreement between this finding and the results for self reported offenses is quite clear cut, since decline after age 17 is characteristic of all of the relevant self report items.

Time Trends

Tables 6 through 12 present results for time trends in self reported illegal behavior and corresponding indices of arrest.[1] While age trends in illegal behavior are consistent across offenses, this is not the case for time trends. Furthermore, fluctuations with time are nowhere near as dramatic as fluctuations with age.

A perusal of Table 6 suggests only two substantial time trends in self reported offenses. First, there was a noticeable (if not necessarily steady) increase in assaults. Second, there was a decline in the rate of theft. Examining the four separate items that comprise this index (see Tables 9 through 12), the change is most marked for shoplifting. In fact, an index based on the other items changes little over time.

For the remaining offenses (robbery, joy riding, arson, and vandalism) the time pattern is more erratic, with no approximation of a monotonic trend, a single peak, or a single valley. This suggests that there is no interpretable trend for these offenses. Many of the year to year fluctuations are statistically significant, but this is a reflection of the statistical power gained from having over 3,000 cases for each year rather than a reflection of the substantive significance of the results.

Table 7 shows annual arrest rates of 17 year olds for offenses corresponding to the self report items. To assist in comparing arrest rates and self report offense rates, we present graphs of both in Figures 3 through 8. We also compared the two methods in terms of results from linear and quadratic models of offense rates regressed on time, which are shown in Table 8.[2]

Increases in rates of assault are apparent in Figure 3 for the two arrest indices (aggravated and other) and for the self report index. The linear coefficient for time is significant (but not the quadratic) in all three cases. The magnitude of the coefficients indicates a 26% increase over the ten year span for self reported assaults and arrests for non-aggravated assaults. The increase is 18% for arrests for aggravated assault. This is a trend of considerable practical importance, and one that, to our knowledge, has not previously been detected in analyses of crime rates.

Time trends for robbery are less clear. Though there is a significant quadratic relationship of time to self reported robbery, this accounts for little more than half of the across time variation. As portrayed in Figure 4, the rate of self reported robbery is erratic over time. Arrest rates, on the other hand, are relatively stable. They vary within a range of about 15%, and there is no significant linear or quadratic trend.

The significant linear trend in the aggregate self report measure of theft is entirely accounted for by shop lifting, as can be seen in the regression analyses and as is clear in Figure 5. There is a significant upward trend over time, however, for arrests for larceny. The regression coefficient corresponds to a relatively small increase of 9% over ten years.

We suspect that the upward trend in arrests also may be attributable to shoplifting, even though this trend is in the opposite direction as the trend for self reports of shoplifting. We are not able to separate age specific arrest rates for shoplifting from rates for other larcenies in order to test this directly. Nevertheless, shoplifting consistently increased as a proportion of thefts known to the police during this period. It is plausible that arrests for shoplifting would increase while actual offenses decreased during this period. During this time many retail stores installed merchandise security systems, there were campaigns to increase the prosecution of shoplifters, and there was a great deal of publicity to discourage shoplifting.

As can be seen in Figure 6, the time trend for self reports of joy riding is erratic. Though the regression analysis indicates a significant linear trend, it accounts for only about 25% of the year to year variation. Time trends for arrests for car theft by 17 year olds are somewhat more consistent. There is a significant downward linear trend, which primarily reflects changes from 1978 through 1984. The conceptual correspondence between these two indices

is weaker than for the other offense categories. The self report item asks about taking a car without permission, but there is no implication that the car has been stolen.

The regression equations for the self report and arrest indices of arson are similar in that they include a significant quadratic term but no significant linear component. The trends are more different than similar, however, because the coefficients for year squared have opposite signs. As Figure 7 illustrates, arrest and self report rates for 1975 are similar to rates in 1985. Through the intervening time, they have diverged, with arrests increasing while self reports decreased. These differences are less substantial than they may appear. Arson is the least frequent offense for either method, and correspondingly our estimates of the time trend are the least accurate. For example, with the self report index, even though the rate shifts over 30%, and the sample size is 35,762 cases, differences in rates among years (eta^2) barely reach statistical significance at the .05 level.

Variation over time in the rates of the two measures of vandalism are shown in Table 8. The pattern is inconsistent, and there is no significant linear or quadratic trend for either self reports or arrest. Thus, the two methods are in substantial agreement that there has been little meaningful change in the rate of this behavior from 1975 through 1985.

Discussion

Correspondence Between Rates of Self Reports and Arrests

Our analysis provides numerous comparisons between offense rates based on self reports and offense rates based on arrests. The entire set of results does not provide a simple yes or no answer to the question of whether the two methods yield consistent results. Nevertheless, our results do provide

evidence of important instances of agreement as well as indications of the circumstances in which agreement is least likely.

With the exception of arrest indices of assault, both methods indicate substantial declines from ages 17 through 23 for virtually all offenses. The two methods are consistent in indicating an increase in assaults from 1975 through 1985, and in indicating no change in vandalism. Time trends in arrests for theft show an increase while self reports show a decrease, but we consider this divergence a plausible consequence of efforts to reduce the specific crime of shoplifting.

The two methods are in disagreement about time trends for robbery, joy riding/car theft, and arson. This disagreement is in part a function of the absence of clear trends in rates as estimated by either method. In fact, assault and shoplifting are the only cases in which most variation over time is attributable to a linear trend. Furthermore, the three offenses at issue have considerably lower self report rates than the other indices, which reduces the accuracy of estimates. The combination of weak or erratic trends, low rate behaviors, and the extremely small proportions of variance attributable to time trends (.04% to .25% for self report), yields little chance of agreement between the two methods.

It is interesting that assaults are the single area in which the two methods disagree for [illegible] trends and also the area of greatest agreement for time trends. We can [illegible] three potential explanations for the divergence, though we have no basis for testing them. The first would be that social norms for reporting assaults to the authorities and for enforcing laws about assault become stricter with age. For instance, a fight on the street might be more likely to be ignored or receive only a reprimand if it involves two teenagers than if it involves two people in their mid-twenties. Second,

assaults at older ages may occur in settings and situations more likely to provoke official reaction. Consider the difference between a fight on a playground and a fight in a bar. Third, though less common, assaults at older ages may be more serious, and thus more likely to lead to arrest.

Substantive Implications

One important aspect of our findings is that time trends in crime rates are not at all uniform across offenses. For both self report and arrest indices, some offenses increased during this interval, while others declined. It is clear, therefore, that the trends do not reflect any change in a general tendency toward deviance (called criminality by Hirschi and Gottfredson, 1986, and conventionality by Donovan and Jessor, 1985). This is consistent with our conclusions about over time variation in rates of use of various illicit drugs (Bachman, 1987), which seem best explained by shifts in norms and attitudes that are specific to particular behaviors. We would therefore hypothesize that teenagers have become more tolerant of fighting and assaults in recent years. The generality of the decline with age in illegal behavior is consistent with a decrease in the general tendency toward deviance. Nevertheless, that interpretation is contradicted by the varying age trends for use of different illicit drugs.

Finally, our finding that rates of assault have increased deserves attention from researchers and policy makers. This trend applies equally well to 1980 through 1984, a period in which it was generally thought that crime rates were decreasing (see Steffensmeier and Harer, 1987).

References

Bachman, Jerald G. 1987. Paper presented at the International Conference on the Addictions.

Bachman, Jerald G., and Lloyd D. Johnston. 1978. The Monitoring the Future Project: Design and Procedures. (Occasional Paper #1.) Ann Arbor, MI: Institute for Social Research.

Bachman, Jerald G., Patrick M. O'Malley, and Jerome Johnston. 1978. Adolescence to Adulthood: Change and Stability in the Lives of Young Men. Ann Arbor, MI: Institute for Social Research.

Donovan, John E., and Richard Jessor. 1985. "Structure of Problem Behavior in Adolescence and Young Adulthood." Journal of Consulting and Clinical Psychology, 53:890-904.

Elliott, Delbert S., and Suzanne S. Ageton. 1980. "Reconciling Race and Class Differences in Self-Reported and Official Estimates of Delinquency." American Sociological Review, 45:95-110.

Empey, LaMar T. 1982. American Delinquency: Its Meaning and Construction. Homewood, IL.: Dorsey Press.

Gold, Martin. 1970. Delinquent Behavior in an American City. Belmont, CA: Brooks/Cole.

Gold, Martin, and Donald J. Reimer. 1975. "Changing Patterns of Delinquent Behavior Among Americans 13-16 Years Old: 1967-1972." Crime and Delinquency Literature, 7:483-517.

Hirschi, Travis, and Michael Gottfredson. 1983. "Age and the Explanation of Crime." American Journal of Sociology, 89:552-584.

_____. 1986. "The Distinction Between Crime and Criminality." In Timothy Hartnagel and Robert Silverman (eds.), Critique and Explanation: Essays in Honor of Gwynn Nettler. New Jersey: Transaction.

Hindelang, Michael J., Travis Hirschi, and Joseph G. Weis. 1979. "Correlates of Delinquency: The Illusion of Discrepancy Between Self-Report and Official Measures." American Sociological Review, 44:995-1014.

Johnston, Lloyd D., Jerald G. Bachman, and Patrick M. O'Malley. 1986. Monitoring the Future: Questionnaire Responses from the Nation's High School Seniors, 1985. Ann Arbor, MI: Institute for Social Research.

Johnston, Lloyd D., Patrick M. O'Malley, and Jerald G. Bachman. 1986. Drug Use Among American High School Students, College Students, and Other Young Adults: National Trends Through 1985. Washington, D.C.: National Institute on Drug Abuse.

Steffensmeier, Darrell J., and Miles D. Harer. 1987. "Is the Crime Rate Really Falling? An Aging Population and Its Impact on the Nation's Crime Rate." Journal of Research in Crime and Delinquency, 24:23-48.

Footnotes

[1]The presentation will concentrate on Tables 6 through 8. Tables 9 through 12 provide more detail, but they are limited to two fewer years. In fact, the years are labeled incorrectly in these tables, which actually refer to 1975 through 1983 rather than 1976 through 1984. The extra tables are included to provide documentation for trends at the item specific level and separately for males and females. Table 6 presents results most comparable to available arrest statistics in terms of the grouping of items, rate of offenses rather than individuals, and combining the sexes.

[2]The regression equations for self reported offenses are based on individual respondents as the unit of analysis. Eta-squared represents the proportion of variance among individuals that is accounted for by year to year variation in the crime rate. Thus, the better the linear or quadratic models account for the year to year variation, the closer they will approximate eta-squared. For the regression analysis of arrest rates, years are the unit of analysis, so eta-squared would equal one by definition. Therefore, R-squared can be interpreted as the proportion of year to year variation accounted for by the regression model. Year was recoded with 1980 equal to zero, 1975 equal to minus five, and 1985 equal to plus five. With this recoding, the regression coefficients have straightforward interpretations. The constant corresponds to the fitted crime rate for 1980, and the coefficients for year and year squared are not colinear.

Table 1. Self Reported Illegal Behavior by Age, Males, Rate per Person

	17	18	19	20	21	22	23	Eta^{2}(Adj)	r
Hit Supervisor	.06	.03	.00	.02	.01	.04	.02	.004	-.06
Fight at Work/School	.26	.23	.13	.15	.08	.12	.08	.013	-.11
Gang Fight	.36	.25	.17	.20	.09	.12	.05	.023	-.15
Hurt Someone Badly	.25	.20	.12	.10	.05	.09	.02	.020	-.15
Robbery	.07	.05	.03	.03	.00	.02	.00	.004	-.08
Steal <$50.	.91	.87	.72	.69	.72	.57	.47	.008	-.10
Steal >$50.	.16	.12	.09	.15	.10	.12	.03	.002	-.05
Shoplift	.83	.61	.47	.39	.37	.19	.25	.039	-.20
Joy Riding	.11	.08	.04	.05	.02	.01	.00	.006	-.09
Steal Car Parts	.20	.63	.10	.09	.05	.04	.03	.013	-.12
Trespassing	.63	.50	.29	.33	.16	.15	.08	.046	-.21
Arson	.06	.04	.01	.01	.00	.01	.00	.006	-.08
Damage School Property	.36	.27	.09	.08	.05	.05	.01	.043	-.20
Damage Work Property	.20	.17	.09	.12	.05	.08	.08	.007	-.09
Aggression Sum	.99	.77	.45	.50	.23	.39	.17	.033	-.18
Property Sum	3.42	2.82	1.87	1.90	1.50	1.21	.95	.050	-.22
Variety of Offenses	2.31	1.91	1.28	1.26	.93	.87	.59	.083	-.28

Table 2. Self Reported Illegal Behavior by Age, Females, Rate per Person

	17	18	19	20	21	22	23	$Eta^{2(Adj)}$	r
Hit Supervisor	.02	.00	.00	.00	.00	.00	.00	.005	- .06
Fight at Work/School	.14	.12	.10	.08	.09	.05	.10	.001	- .05
Gang Fight	.16	.11	.13	.05	.04	.04	.02	.014	- .12
Hurt Someone Badly	.04	.03	.02	.01	.01	.01	.01	.001	- .06
Robbery	.01	.02	.02	.00	.00	.00	.00	.000	- .03
Steal <$50.	.47	.45	.38	.32	.27	.30	.19	.007	- .10
Steal >$50.	.03	.03	.03	.01	.04	.02	.04	.000	- .00
Shoplift	.54	.39	.32	.21	.16	.22	.14	.027	- .16
Joy Riding	.04	.02	.03	.01	.01	.00	.01	.001	- .05
Steal Car Parts	.02	.01	.02	.00	.01	.00	.03	.001	- .03
Trespassing	.33	.16	.19	.14	.10	.10	.03	.021	- .14
Arson	.00	.00	.01	.00	.00	.00	.00	.000	- .01
Damage School Property	.11	.04	.04	.02	.01	.01	.00	.014	- .12
Damage Work Property	.03	.02	.02	.04	.02	.03	.01	.000	- .01
Aggression Sum	.37	.28	.26	.15	.14	.10	.12	.011	- .11
Property Sum	1.55	1.12	1.04	.74	.62	.68	.45	.028	- .17
Variety of Offenses	1.08	.77	.70	.56	.43	.43	.36	.044	- .21

Table 3. Self Reported Illegal Behavior by Age, Males, Percent Reporting One or More Offenses

	17	18	19	20	21	22	23	X^2	Prob	Gamma
Hit Supervisor	3.8	1.8	.1	1.1	.7	2.5	1.3	18.2	.01	-.38
Fight at Work/School	16.2	14.1	7.9	10.2	5.3	8.7	6.2	32.7	.00	-.27
Gang Fight	20.3	15.9	11.6	12.0	7.5	8.7	3.1	47.7	.00	-.32
Hurt Someone Badly	15.6	14.8	9.7	6.4	4.5	4.1	1.6	53.6	.00	-.38
Robbery	4.2	3.0	1.5	1.2	0.0	1.1	.3	21.7	.00	-.52
Steal <$50.	41.2	39.9	37.3	32.1	31.3	24.3	21.7	31.8	.00	-.18
Steal >$50.	8.9	7.3	4.2	7.5	5.7	6.2	2.1	12.1	.06	-.17
Shoplift	39.0	28.8	22.8	16.4	19.4	10.4	11.5	102.8	.00	-.36
Joy Riding	5.2	4.2	3.2	2.8	1.2	.5	0.0	18.2	.01	-.39
Steal Car Parts	11.5	10.2	6.0	6.3	3.7	3.3	2.3	31.0	.00	-.33
Trespassing	34.0	25.8	16.4	19.3	9.2	10.4	5.7	111.3	.00	-.40
Arson	3.2	2.2	.5	.7	.1	.5	.0	20.3	.00	-.59
Damage School Property	19.5	14.5	4.9	4.3	3.1	2.7	.8	113.0	.00	-.56
Damage Work Property	10.4	10.7	5.5	6.7	3.1	4.4	3.1	25.4	.00	-.29
Any Offense	74.3	65.4	54.6	53.1	45.7	40.7	29.7	149.8	.00	-.38
Any Aggressive Offense	34.9	28.0	21.8	20.6	13.8	17.0	8.7	77.2	.00	-.32
Any Property Offense	68.5	59.6	47.8	46.4	42.1	31.0	27.7	140.2	.00	-.36

Table 4. Self Reported Illegal Behavior by Age, Females, Percent Reporting One or More Offenses

	17	18	19	20	21	22	23	X^2	Prob.	Gamma
Hit Supervisor	1.6	.1	.2	.0	.2	.0	.0	18.8	.01	-.80
Fight at Work/School	9.9	7.2	7.1	6.3	6.1	3.2	7.4	11.4	.08	-.16
Gang Fight	10.9	9.1	8.6	3.0	3.2	2.7	1.6	45.3	.00	-.38
Hurt Someone Badly	2.8	1.9	1.0	1.1	.5	.6	.7	12.3	.06	-.41
Robbery	.7	1.0	1.0	.2	.1	.2	.0	5.6	.48	-.34
Steal < $50.	23.2	23.0	19.3	19.2	13.3	16.4	11.2	23.5	.00	-.17
Steal > $50.	1.6	1.0	1.1	.6	2.3	1.1	1.6	4.0	.68	-.01
Shoplift	26.6	18.2	15.4	12.7	8.0	11.8	7.0	80.4	.00	-.35
Joy Riding	2.3	1.9	2.0	.8	.4	.0	.9	9.8	.13	-.36
Steal Car Parts	1.9	1.0	1.3	.1	.6	.0	1.3	9.5	.15	-.35
Trespassing	18.8	9.6	10.5	8.2	6.1	4.4	2.9	69.6	.00	-.38
Arson	.3	.0	.4	.1	.0	.0	.2	3.2	.79	-.30
Damage School Property	6.4	3.3	2.5	1.5	1.4	1.1	.2	34.7	.00	-.50
Damage Work Property	1.9	1.7	1.1	2.0	1.1	1.7	1.1	2.0	.92	-.09
Any Offense	50.8	40.1	35.9	32.1	25.3	25.2	24.3	98.3	.00	-.29
Any Aggressive Offense	19.5	15.0	14.6	9.3	8.5	5.4	9.3	44.7	.00	-.28
Any Property Offense	45.0	34.7	29.3	28.3	18.9	22.7	16.8	104.1	.00	-.31

Table 5. Age and Sex Specific Arrest Rates per 100,000 Population

Males

Offense	Age 17	18	19	20	21	22	23
Aggravated Assault	513	546	562	577	579	575	556
Other Assaults	875	885	906	966	1038	1020	1030
Robbery	581	560	498	436	395	345	310
Larceny	3287	2904	2472	2050	1814	1583	1437
Car Theft	548	438	363	305	261	231	204
Arson	39.3	30.0	35.6	30.0	30.1	26.2	24.2
Vandalism	860	684	539	454	411	361	323
Population Base of Estimates (1000s)	1427	1441	1586	1650	1638	1646	1670

Females

Offense	Age 17	18	19	20	21	22	23
Aggravated Assault	76	79	88	86	89	85	87
Other Assaults	195	191	173	167	183	165	168
Robbery	35	35	33	35	32	30	28
Larceny	1135	1010	905	844	754	694	641
Car Theft	43	38	29	24	22	21	20
Arson	4.2	4.0	3.4	3.5	4.4	3.7	3.4
Vandalism	80	61	46	44	46	43	40
Population Base of Estimate (1000s)	1360	1392	1547	1601	1596	1612	1651

Note: Figures are derived from the Sourcebook of Criminal Justice Statistics,, and Current Population Reports. For Other Assaults and Vandalism, these are 1984 arrest rates. All other arrest rates are for 1983. Population base is given for 1984.

Table 6. Annual Rates of Self Reported Illegal Behavior,

Offenses per 1000 17 Year Olds

	Year										
Offense	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Assaults	704	666	675	732	785	741	815	833	843	882	810
Robbery	49	56	50	42	50	44	38	59	63	66	64
All Theft	1571	1498	1497	1605	1590	1435	1484	1339	1394	1409	1395
Shoplifting	695	650	651	675	666	591	614	517	550	548	565
Theft, other than Shoplifting	879	856	855	931	926	847	876	828	850	869	832
Car Theft	79	81	74	75	92	64	76	98	97	106	84
Arson	32	35	30	23	21	27	21	24	35	33	40
Vandalism	315	337	339	394	365	353	320	370	360	358	339
Sample Size (weighted)	2983	3164	3723	3304	3265	3617	3636	3397	3281	3285	3129

Table 7. Annual Arrest Rates for 17 Year Olds,

Arrests per 100,000 Population

	Year										
Offense	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Aggravated Assault	266	257	266	301	310	302	287	326	300	302	322
Other Assaults	454	458	480	523	555	539	514	578	569	543	630
Robbery	332	281	289	322	302	320	314	341	315	292	282
Larceny	2181	2092	2063	2135	2297	2300	2245	2387	2242	2159	2379
Car Theft	399	366	404	434	422	368	324	331	302	306	356
Arson	20.4	24.1	23.3	26.5	27.3	28.0	27.9	26.0	22.2	21.9	23.4
Vandalism	388	411	424	478	578	524	475	490	474	478	504
Population Base of Estimates (1000s)	3546	3442	3845	4042	3888	3861	3878	3217	3226	2788	3597
National Population (1000s)	4274	4276	4268	4345	4276	4224	4162	3990	3770	3668	3597

Note: Figures are derived from the Sourcebook of Criminal Justice Statistics, and Current Population Reports.

Table 8. Regression Models of Time Trends in Offense Rates

of 17 Year Olds, 1975 - 1985

Self Reported Offenses

Rate per person, N = 35,762 people

	Assault	Robbery	All Theft	Shop-lifting	Other Theft	Joy Riding	Arson	Vandalism
R-squared Linear	.0012*	.0002*	.0006*	.0017*	.0001	.0002*	.0000	.0000
R-squared Quardratic	.0013	.0004*	.0006	.0017	.0001	.0002	.0003*	.0001
Eta-squared	.0015	.0007	.0011*	.0025*	.0004	.0008*	.0005	.0004
Regression Coefficients								
Constant	.7641	.0458	1.466	.6048		.0817	.0225	
Year	.0202	.0015	-.0195	-.0152		.0020	.0002	
Year Squared		.00052					.00051	

Arrests

Rate per 100,000, N = 11 years

	Aggr. Assault	Other Assualt	Robbery	Larceny	Car Theft	Arson	Vandalism
R-squared Linear	.600*	.774*	.013	.381*	.490*	.001	.224
R-squared Quadratic	.666	.780	.143	.401	.496	.702*	.273
Regression Coefficients							
Constant	294.5	531.2		2225.	364.7	27.02	
Year	5.35	14.15		20.6	-9.68	.023	
Year Squared						-.238	

* $p < .05$, for increase in explained variance

Note: In calculating the regression coefficients, 1980 was coded as zero.

Table 9. Self Reported Illegal Behavior by Year, Males, Rate per Person

	76	77	78	79	80	81	82	83	84	$Eta^{2(Adj)}$	r
Hit Supervisor	.08	.08	.08	.08	.10	.08	.08	.10	.09	.000	.01
Fight at Work/School	.34	.32	.32	.34	.37	.35	.35	.42	.39	.001	.03
Gang Fight	.35	.34	.32	.39	.43	.41	.41	.39	.43	.001	.03
Hurt Someone Badly	.27	.23	.27	.25	.32	.26	.29	.31	.30	.001	.02
Robbery	.08	.10	.08	.07	.09	.07	.06	.10	.10	.001	.00
Steal <$50	.90	.85	.84	.89	.91	.86	.86	.80	.80	.000	-.02
Steal >$50	.21	.16	.20	.20	.23	.21	.21	.18	.20	.000	.00
Shoplift	.88	.78	.81	.83	.87	.78	.78	.66	.67	.003	-.04
Joy Riding	.12	.13	.11	.10	.14	.10	.10	.15	.14	.001	.01
Steal Car Parts	.20	.18	.19	.21	.22	.17	.16	.17	.19	.000	-.01
Trespassing	.59	.59	.62	.58	.68	.59	.58	.56	.63	.000	.00
Arson	.05	.06	.06	.04	.04	.05	.03	.04	.06	.000	-.01
Damage School Property	.32	.36	.32	.38	.36	.36	.31	.43	.39	.001	.02
Damage Work Property	.19	.18	.21	.27	.24	.21	.18	.20	.17	.001	-.01
Aggression Sum	1.12	1.06	1.08	1.14	1.30	1.17	1.17	1.32	1.31	.001	.04
Property Sum	3.43	3.27	3.35	3.47	3.65	3.32	3.19	3.19	3.24	.000	-.01
Variety of Offenses	2.00	1.93	1.98	2.17	2.15	2.12	2.06	2.07	2.01	.001	.01

Table 10. Self Reported Illegal Behavior by Year, Females, Rate per Person

	76	77	78	79	80	81	82	83	84	$ETA^{2(Adj)}$	r
Hit Supervisor	.02	.03	.01	.02	.02	.02	.02	.02	.01	.000	-.01
Fight at Work/School	.12	.13	.13	.16	.15	.15	.20	.16	.18	.001	.03
Gang Fight	.16	.17	.18	.17	.16	.17	.21	.21	.17	.000	.02
Hurt Someone Badly	.03	.04	.04	.04	.04	.03	.06	.05	.05	.000	.02
Robbery	.01	.01	.02	.01	.01	.01	.02	.02	.02	.000	.01
Steal <$50	.40	.46	.44	.49	.47	.41	.43	.40	.42	.001	-.01
Steal >$50	.02	.04	.03	.05	.03	.05	.05	.04	.04	.000	.01
Shoplift	.50	.51	.50	.52	.47	.40	.45	.37	.40	.002	-.05
Joy Riding	.04	.03	.04	.04	.04	.03	.05	.04	.05	.000	.01
Steal Car Parts	.02	.03	.03	.03	.02	.01	.03	.03	.03	.000	.01
Trespassing	.29	.28	.31	.31	.29	.25	.30	.26	.31	.000	-.01
Arson	.01	.01	.01	.01	.00	.00	.01	.00	.00	.000	-.01
Damage School Property	.09	.10	.11	.10	.11	.11	.12	.11	.12	.000	.01
Damage Work Property	.02	.03	.02	.04	.03	.04	.03	.02	.01	.001	-.01
Aggression Sum	.34	.38	.38	.40	.37	.38	.50	.45	.43	.001	.03
Property Sum	1.38	1.49	1.48	1.59	1.45	1.28	1.45	1.26	1.39	.000	-.02
Variety of Offenses	.96	.98	1.01	1.08	1.04	.97	1.08	1.02	1.03	.000	.01

Table 11. Self Reported Illegal Behavior by Year, Males, Percent Reporting One or More Offenses

	76	77	78	79	80	81	82	83	84	X^2	Prob.	Gamma
Hit Supervisor	4.8	4.7	5.4	4.5	5.5	4.9	4.4	5.4	5.3	4.8	.78	.01
Fight at Work/School	19.4	18.5	19.4	19.5	21.1	20.9	20.8	24.7	21.7	26.4	.00	.05
Gang Fighting	19.0	18.8	18.1	21.9	24.2	22.1	22.4	21.5	23.5	35.8	.00	.06
Hurt Someone Badly	16.4	14.6	16.6	16.2	20.6	16.4	17.9	18.6	17.1	25.3	.00	.03
Robbery	3.9	4.7	4.3	4.4	5.2	3.8	3.2	4.8	4.8	12.5	.13	.00
Steal <$50	40.1	38.7	39.4	41.9	42.5	39.7	39.6	38.5	38.6	12.2	.14	-.01
Steal >$50	10.2	7.9	9.5	10.8	11.7	11.2	10.7	10.1	10.8	16.4	.04	.03
Shoplift	37.7	35.7	34.7	37.3	38.2	35.3	34.8	31.6	30.7	37.6	.00	-.05
Joy Riding	6.2	6.3	6.2	5.8	7.3	5.5	5.4	7.7	7.6	17.0	.03	.04
Steal Car Parts	10.6	10.2	10.6	11.4	12.7	9.7	9.4	9.1	10.6	16.2	.04	-.02
Trespassing	30.3	29.1	31.7	31.0	33.5	30.3	30.6	30.7	31.5	8.7	.37	.01
Arson	2.9	3.1	3.1	1.9	2.7	3.1	1.7	2.3	3.3	17.3	.03	-.03
Damage School Property	18.0	18.4	17.5	21.2	18.9	20.3	17.7	21.5	20.1	19.7	.01	.03
Damage Work Property	9.9	9.0	10.8	13.6	12.2	10.9	9.4	9.9	8.6	35.4	.00	-.03
Any Offense	70.3	65.5	70.5	73.5	73.8	70.6	70.4	71.7	68.8	20.7	.01	.00
Any Aggressive Offense	34.2	33.9	33.9	36.8	39.7	37.5	38.0	39.2	38.9	30.4	.00	.05
Any Property Offense	64.0	61.1	64.0	66.7	65.5	64.6	61.1	61.8	59.9	29.8	.00	-.03

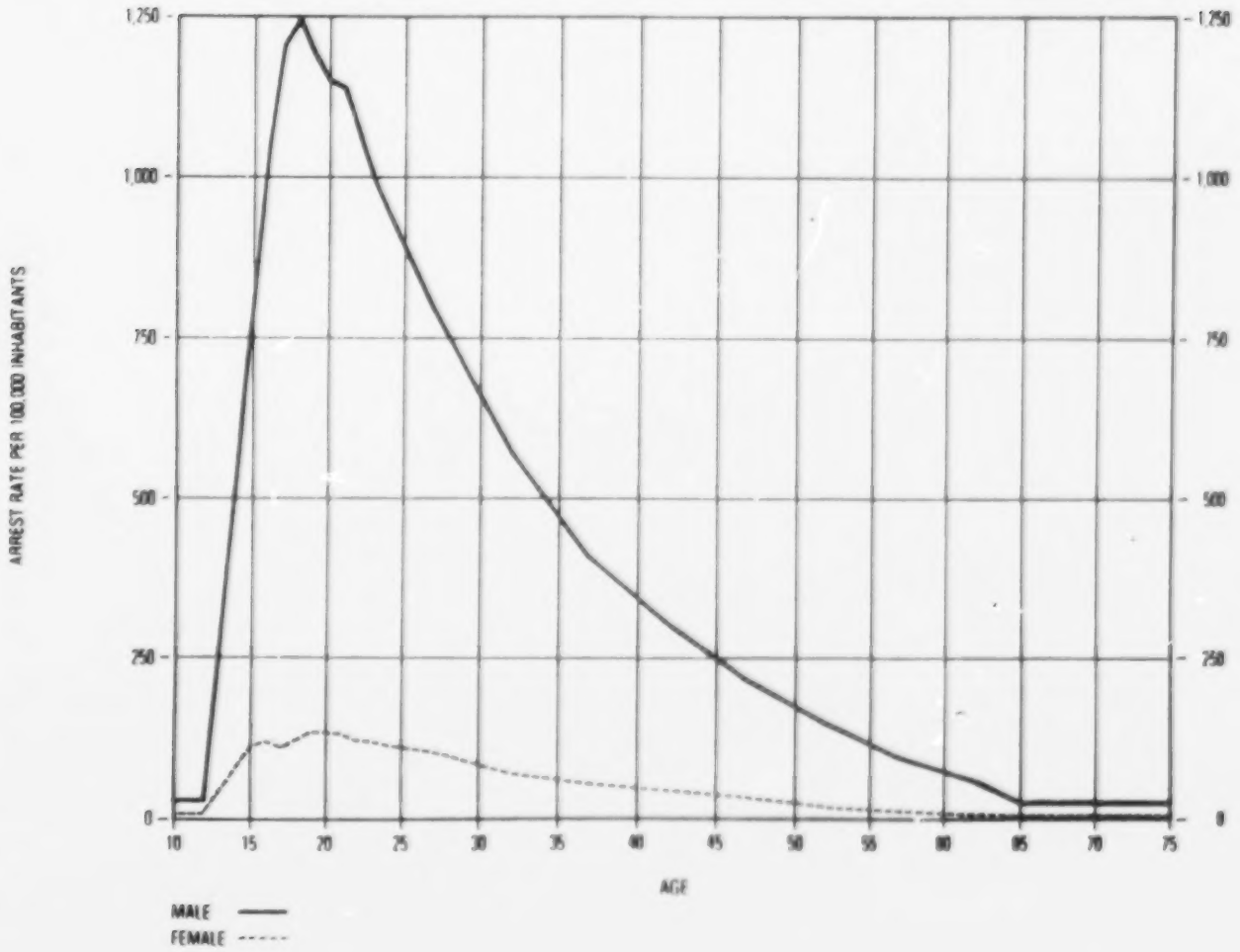
Table 12. Self Reported Illegal Behavior by Year, Females, Percent Reporting One or More Offenses

	76	77	78	79	80	81	82	83	84	X^2	Prob.	Gamma
Hit Supervisor	1.3	1.6	.9	1.4	1.0	1.0	.9	1.3	1.2	6.2	.63	-.03
Fight at Work/School	8.2	9.1	8.7	10.9	10.5	9.9	13.0	10.4	12.0	33.5	.00	.08
Gang Fight	10.6	10.4	11.9	12.6	10.6	11.3	13.5	13.9	11.3	20.6	.01	.04
Hurt Someone Badly	2.3	2.8	2.5	2.7	2.8	2.6	4.2	3.3	3.3	16.1	.04	.09
Robbery	.7	.7	.9	.8	.8	.9	1.3	1.0	1.3	7.0	.54	.12
Steal <$50	21.4	22.4	22.4	25.0	24.4	22.3	23.0	22.8	21.6	10.3	.24	.00
Steal >$50	1.2	1.7	1.5	2.7	1.7	2.8	2.8	2.2	2.1	21.0	.01	.10
Shoplift	26.1	24.6	25.5	26.2	23.4	21.3	22.8	20.5	21.4	33.6	.00	-.06
Joy Riding	2.3	1.9	2.5	2.5	2.1	2.2	2.8	3.0	3.7	14.5	.07	.10
Steal Car Parts	1.3	1.8	1.8	2.0	1.4	1.0	1.8	2.0	1.7	9.4	.31	.01
Trespassing	16.5	15.8	17.0	17.4	16.9	15.4	18.1	15.8	18.3	10.3	.24	.01
Arson	.4	.2	.4	.4	.3	.3	.7	.1	.2	10.6	.23	-.07
Damage School Property	5.6	6.4	7.1	6.9	7.5	6.5	7.0	6.7	7.6	7.7	.47	.03
Samage Work Property	1.4	1.8	1.5	2.2	1.6	2.1	1.9	1.1	1.0	14.7	.07	-.05
Any Offense	47.4	48.8	50.6	50.7	49.4	46.5	52.1	48.3	48.7	16.7	.03	.00
ny Aggressive Offense	17.8	19.0	19.0	21.6	18.8	19.4	23.4	21.3	21.4	26.7	.00	.05
Any Property Offense	42.2	42.3	43.7	44.3	42.9	39.6	43.7	40.3	41.1	14.8	.06	-.02

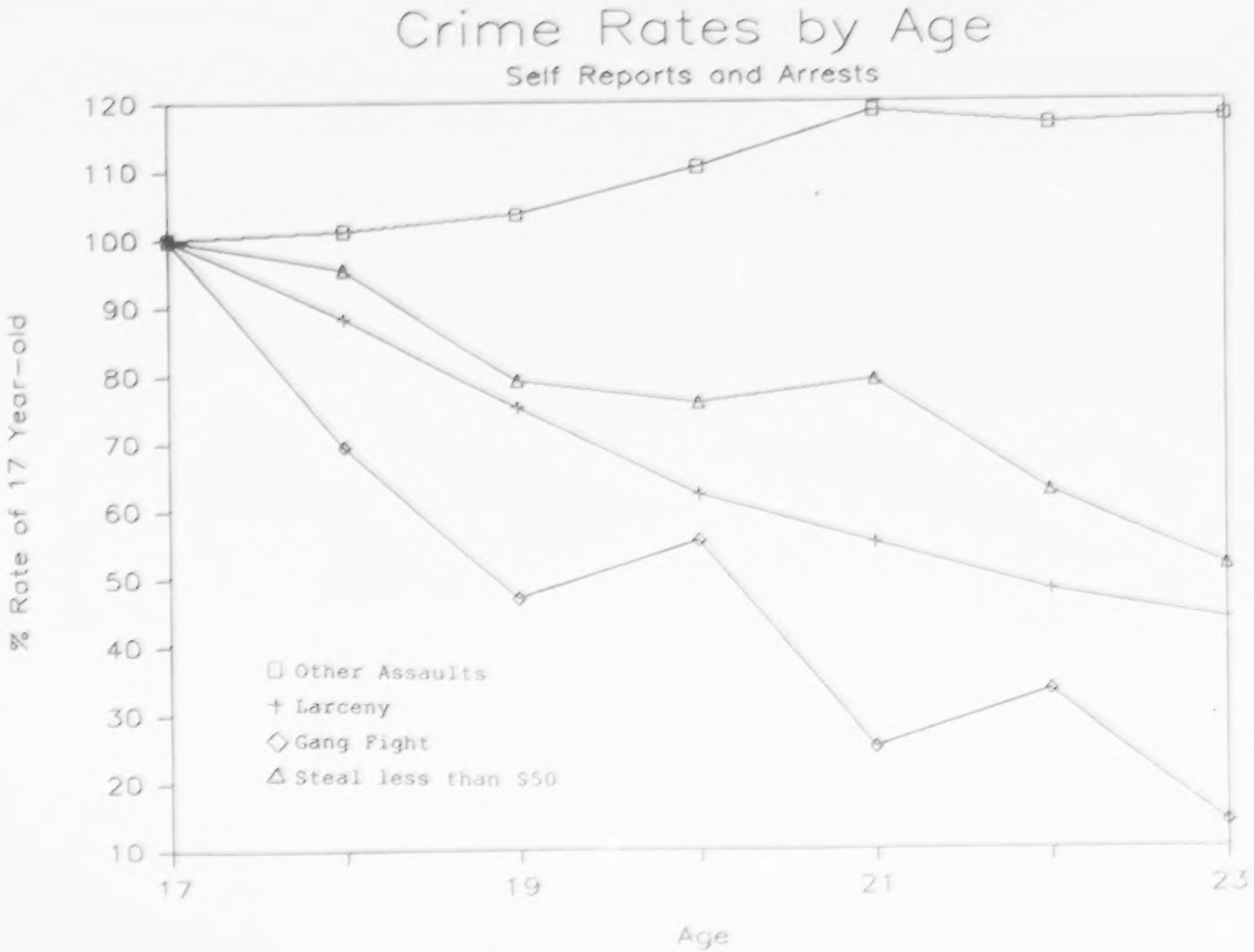
Figure 4.2 Age-specific violent crime arrest rate, by sex, 1983

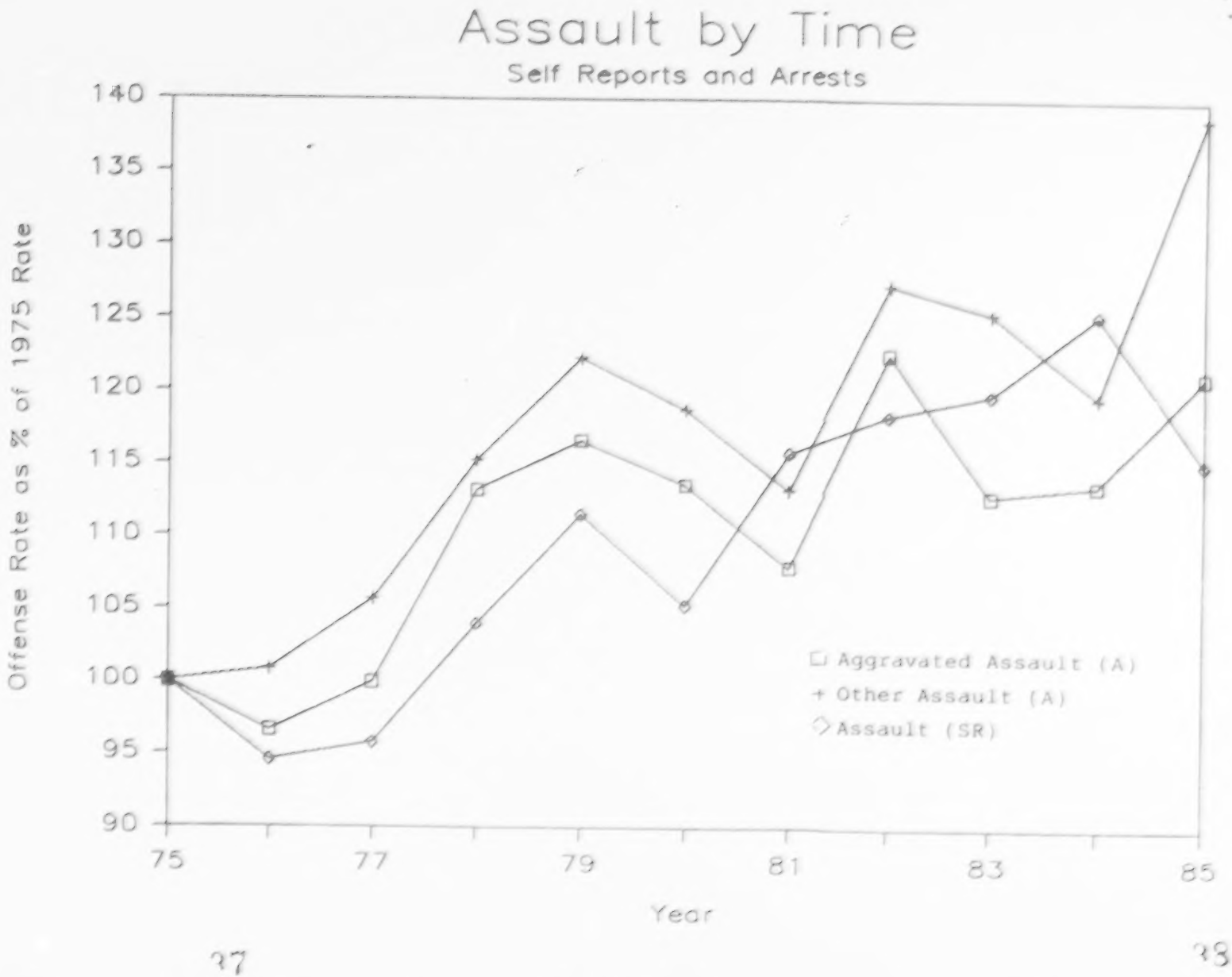
NOTE: See NOTE, Table 4.1(82). For definition of violent crime, see Appendix 3.

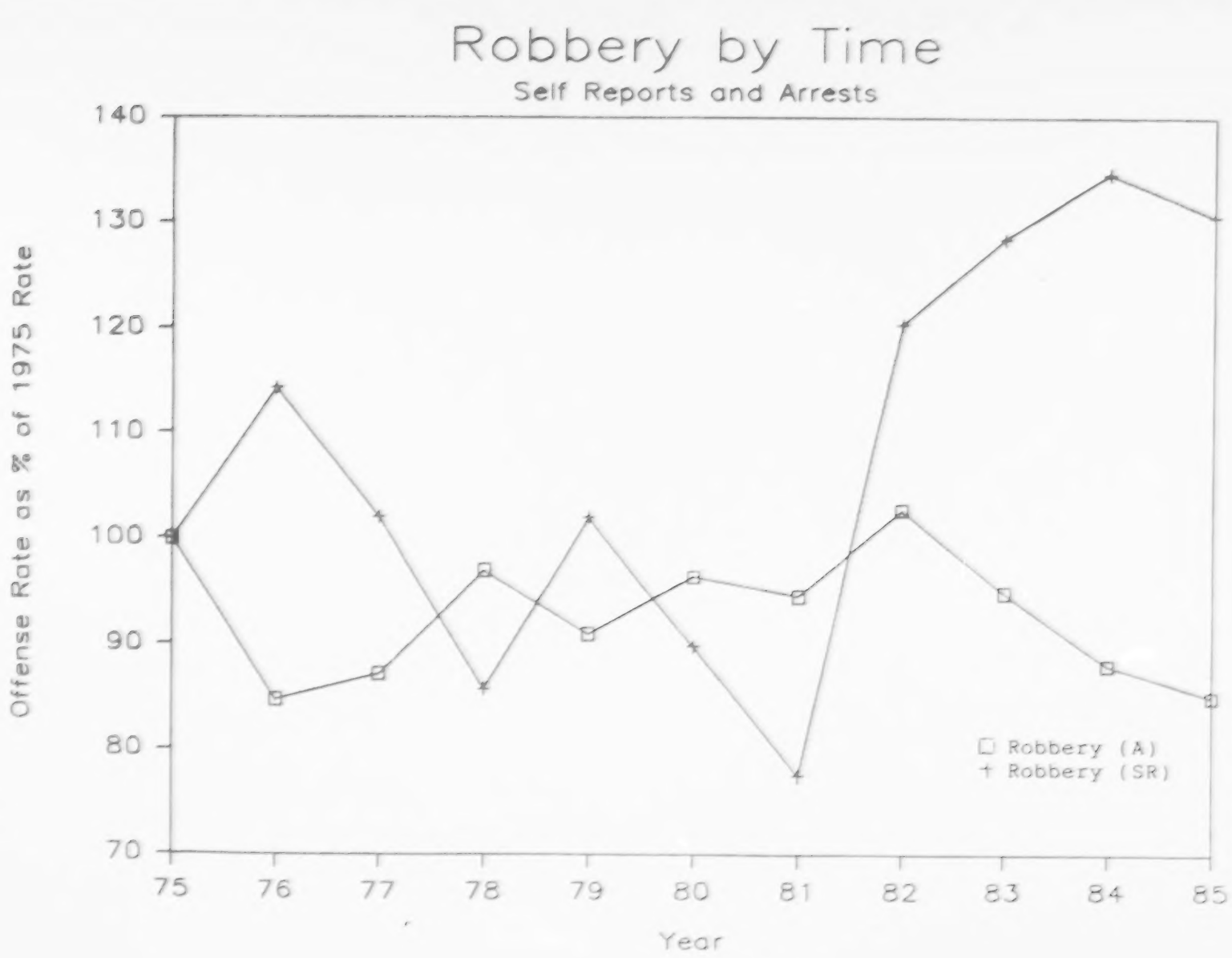
(Age-specific arrest rate: number of arrests per 100,000 inhabitants belonging to a prescribed age group)

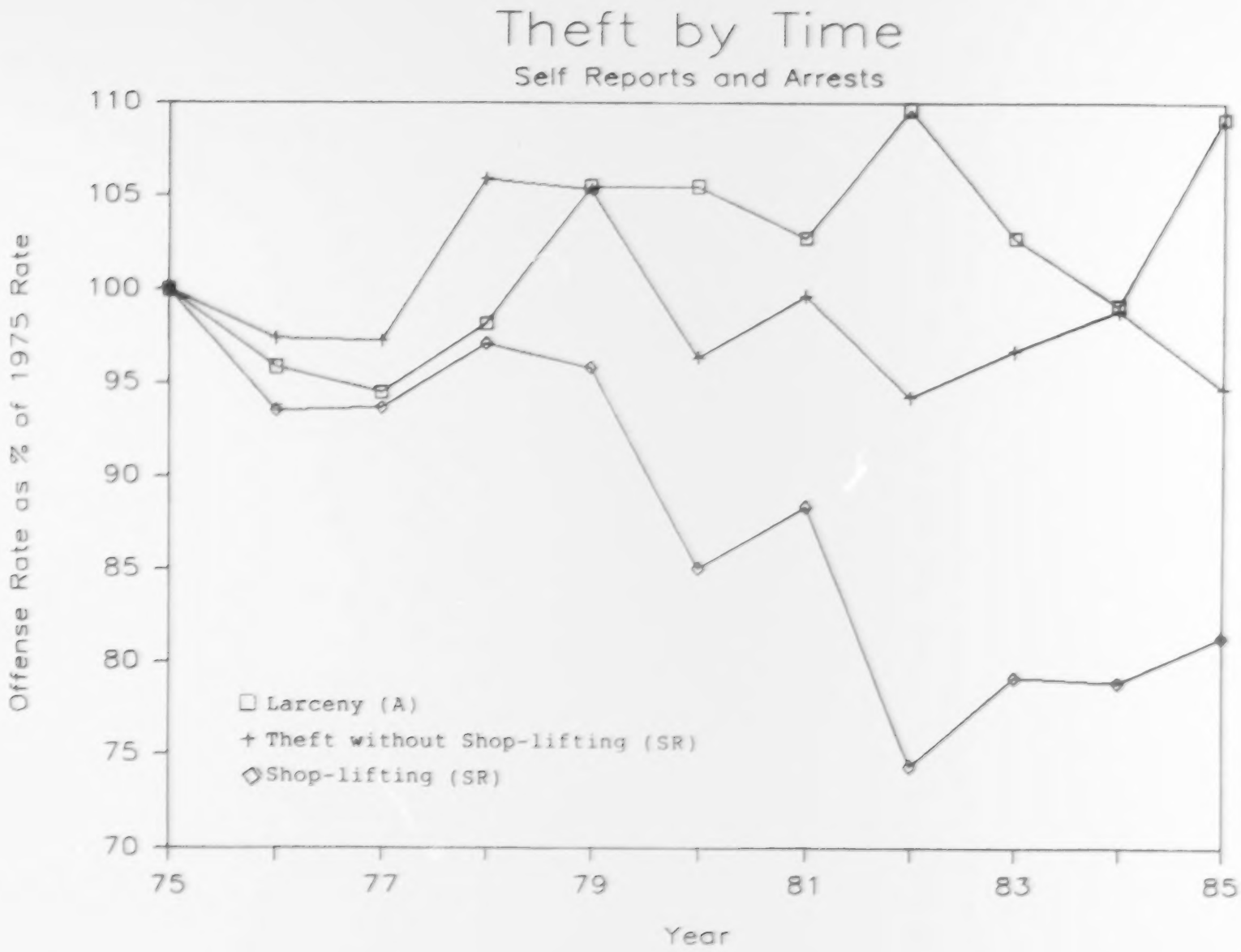


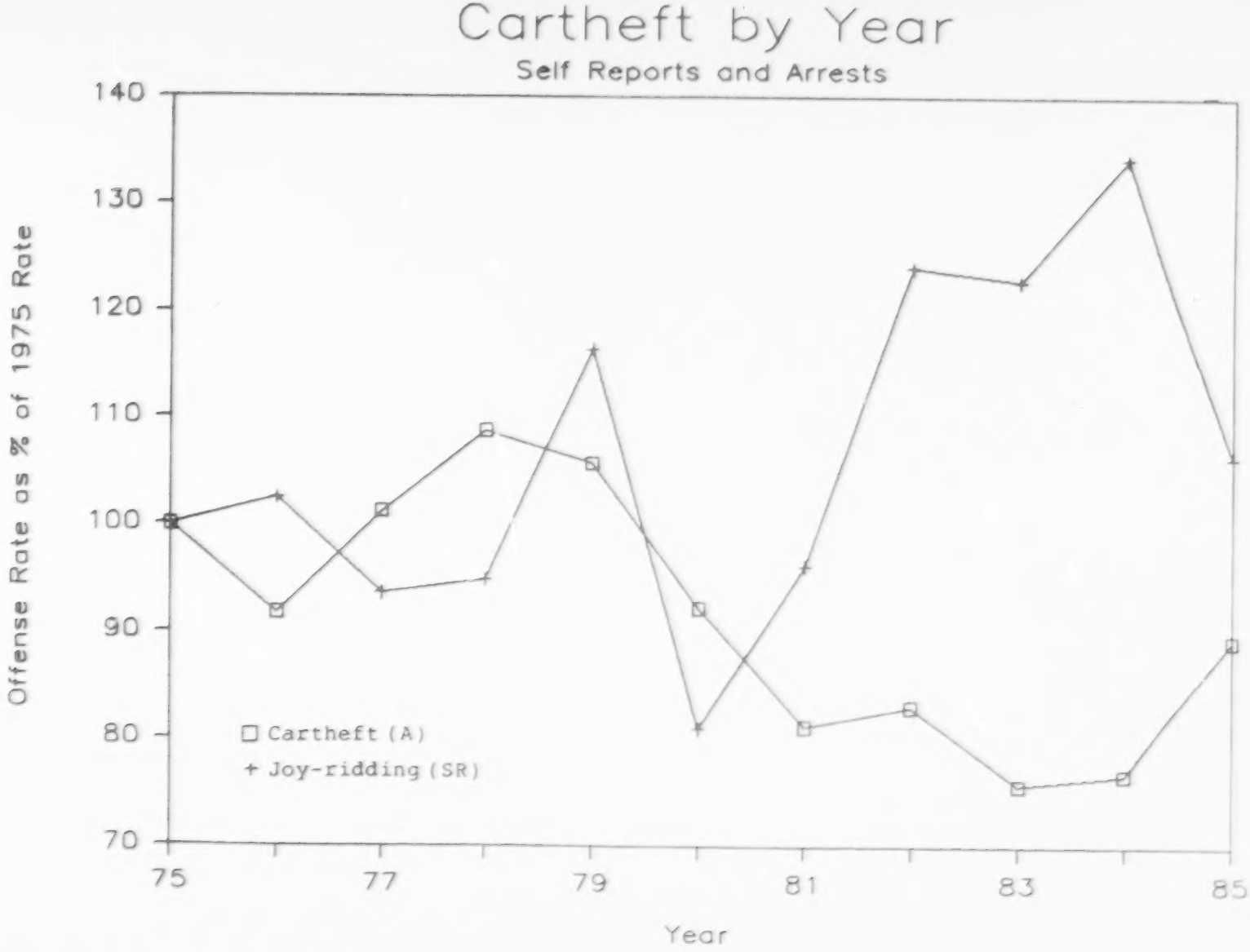
Source: U.S. Department of Justice, Federal Bureau of Investigation, Crime in the United States, 1983 (Washington, D.C.: U.S. Government Printing Office, 1984), p. 346.

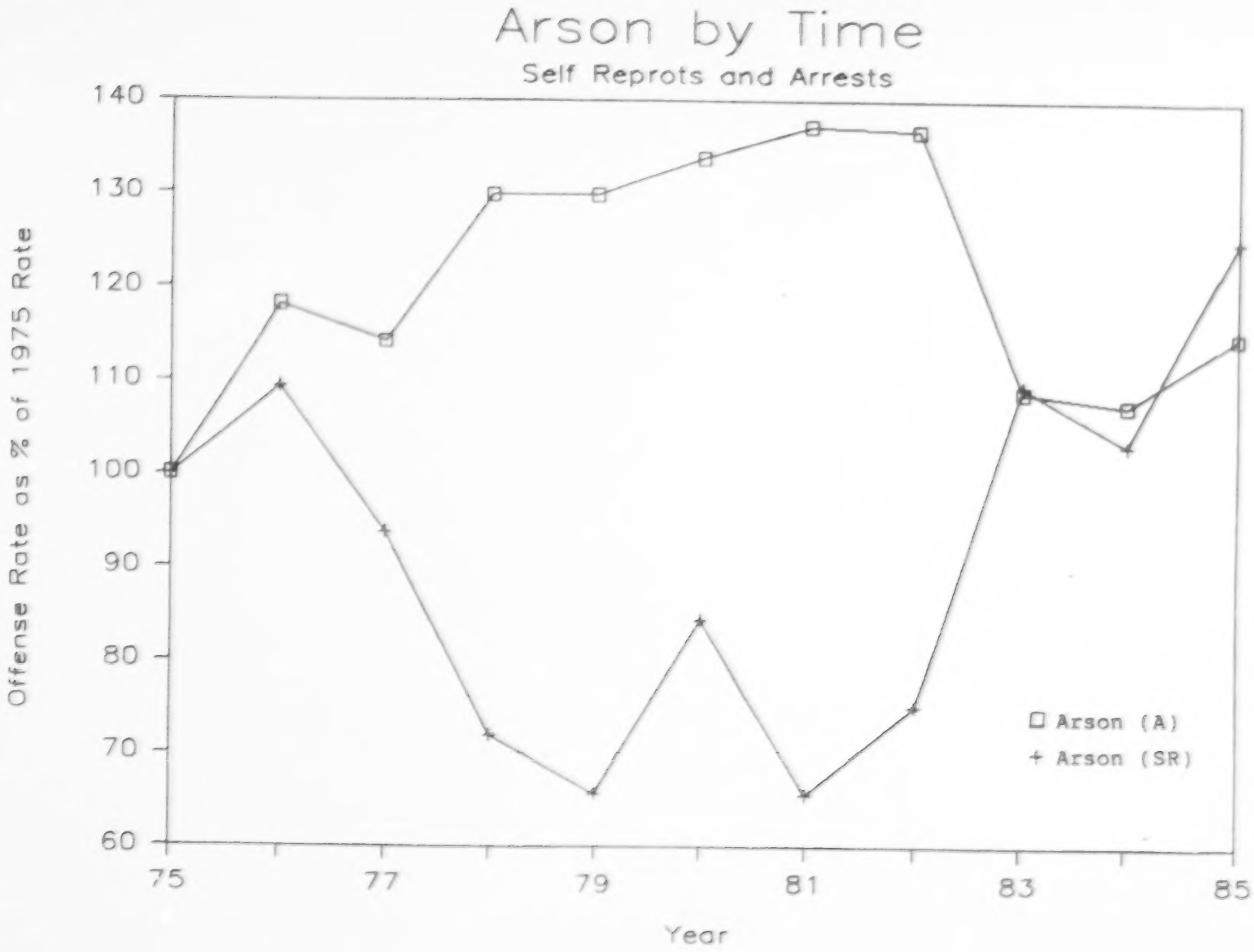

Crime Rates by Age
Self Reports and Arrests
% Rate of 17 Year-old
120
110
100
90
80
70
60
50
40
30
20
10
17
19
21
23
Age
Other Assaults
Larceny
Gang Fight
Steal less than $50

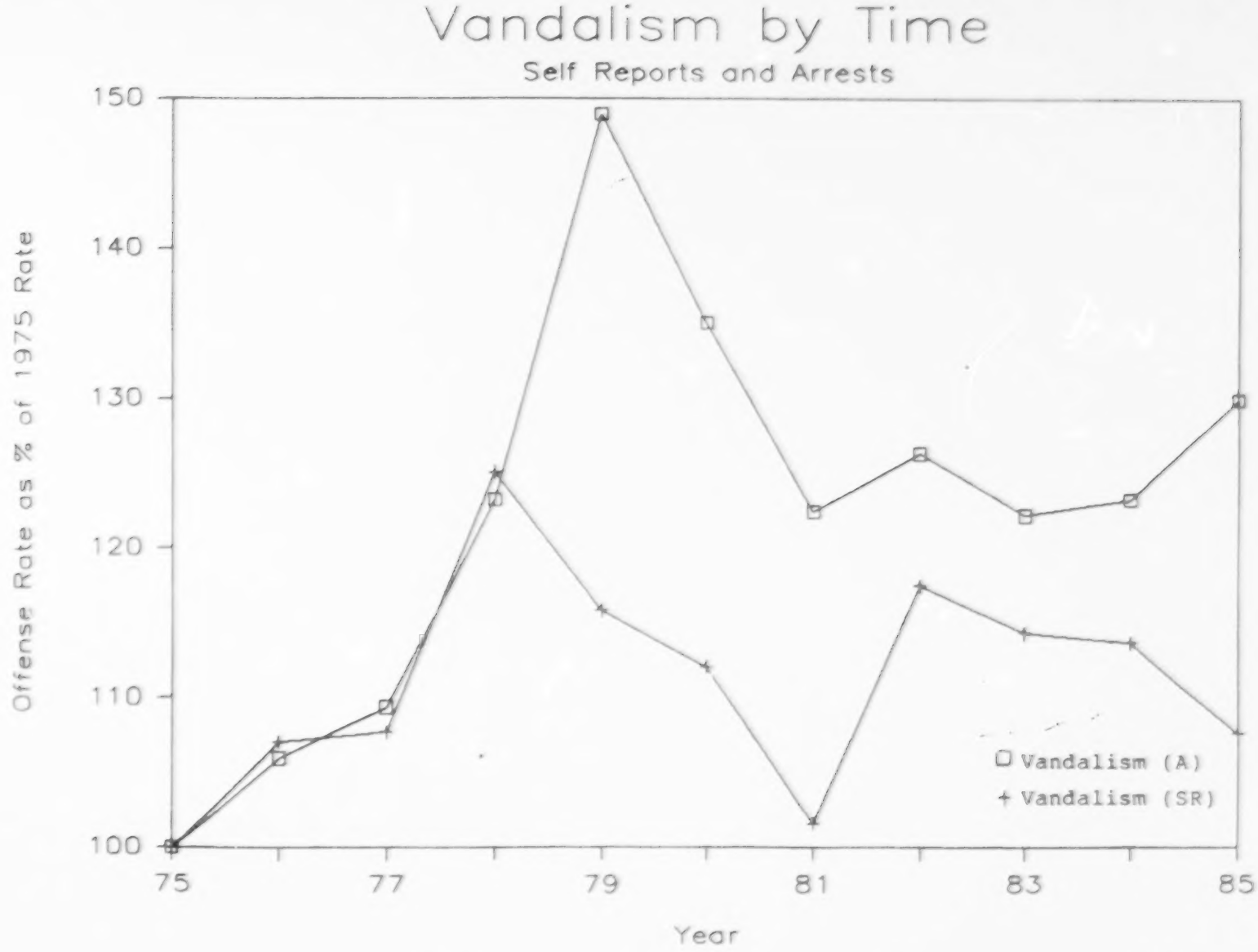

Assault by Time
Self Reports and Arrests
Offense Rate as % of 1975 Rate
140
135
130
125
120
115
110
105
100
95
90
75
77
79
81
83
85
Year
Aggravated Assault (A)
Other Assault (A)
Assault (SR)


Robbery by Time
Self Reports and Arrests
Offense Rate as % of 1975 Rate
140
130
120
110
100
90
80
70
75
76
77
78
79
80
81
82
83
84
85
Year
Robbery (A)
Robbery (SR)


Theft by Time
Self Reports and Arrests
Offense Rate as % of 1975 Rate
110
105
100
95
90
85
80
75
70
75
77
79
81
83
85
Year
Larceny (A)
Theft without Shop-lifting (SR)
Shop-lifting (SR)


Cartheft by Year
Self Reports and Arrests
Offense Rate as % of 1975 Rate
140
130
120
110
100
90
80
70
75
77
79
81
83
85
Year
Cartheft (A)
Joy-ridding (SR)


Arson by Time
Self Reprots and Arrests
Offense Rate as % of 1975 Rate
140
130
120
110
100
90
80
70
60
75
77
79
81
83
85
Year
Arson (A)
Arson (SR)


Vandalism by Time
Self Reports and Arrests
Offense Rate as % of 1975 Rate
150
140
130
120
110
100
75
77
79
81
83
85
Year
Vandalism (A)
Vandalism (SR)